Early career researchers: features and potentials of the doctoral candidates and doctorate holders panel study ProFile

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Outline

1. Getting to know each other
2. Introduction to RISIS
3. Introduction to ProFile – Goals, Scope and Peculiarities
4. Research Design
5. Data Quality & Coverage
6. Analytic Potential
7. Information on SUF
8. Access Conditions

Introduction to ProFile

Background of doctoral education in Germany

- No nationwide obligatory registration (few exceptions)

- No standard regulations on candidature

- No information on total number of doctoral students

- No information on doctoral training conditions

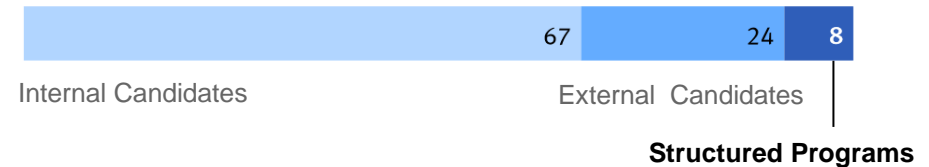# Official Estimation on the Number of Doctoral Candidates

D⊞STATIS
wissen.nutzen.

PROMOVIERENDE IN DEUTSCHLAND

200,400 Doctoral Students Total

Abb. 6 **Promovierende nach Promotionsarten**
Wintersemester 2010/2011, in %

Insgesamt

| 67 | 24 | 8 |

Internal Candidates   External Candidates

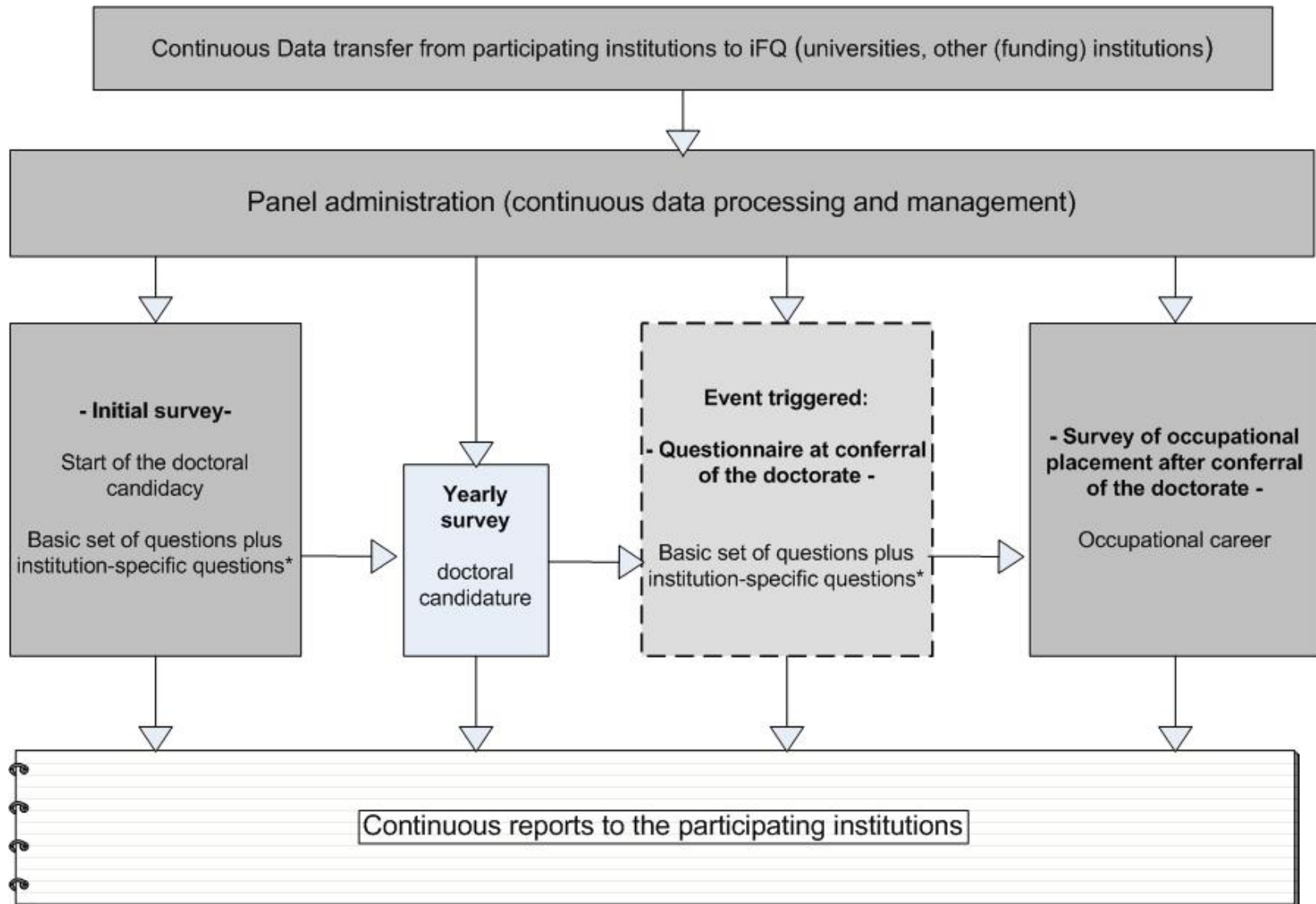**Structured Programs**

2010

Statistisches Bundesamt

Source: Wolters und Schmiedel 2012: 23

Objectives of the ProFile Study

- Monitoring and analysis of doctoral training conditions and careers of doctorate holders over time

- Regular information supply about conditions of doctoral training from a comparative perspective (main dimensions: disciplines, institutions)

- Regular reports for participating institutions on the quality of support for doctoral candidates and the effect of training conditions

Research Design

Continuous Data transfer from participating institutions to iFQ (universities, other (funding) institutions)

Panel administration (continuous data processing and management)

- Initial survey-

Start of the doctoral candidacy

Basic set of questions plus institution-specific questions*

Yearly survey

doctoral candidature

Event triggered:

- Questionnaire at conferral of the doctorate -

Basic set of questions plus institution-specific questions*

- Survey of occupational placement after conferral of the doctorate -

Occupational career

Continuous reports to the participating institutions

Census of Doctoral Candidates at Participating Institutions

DFG DFG funded facilities (CRCs, RTGs, Graduate Schools)

Universities

RUPRECHT-KARLS- UNIVERSITÄT HEIDELBERG

Freie Universität Berlin

OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG

Leibniz Universität Hannover

HUMBOLDT-UNIVERSITÄT ZU BERLIN

JOHANN WOLFGANG GOETHE UNIVERSITÄT FRANKFURT AM MAIN

UNIKASSEL VERSITÄT

Universität Jena

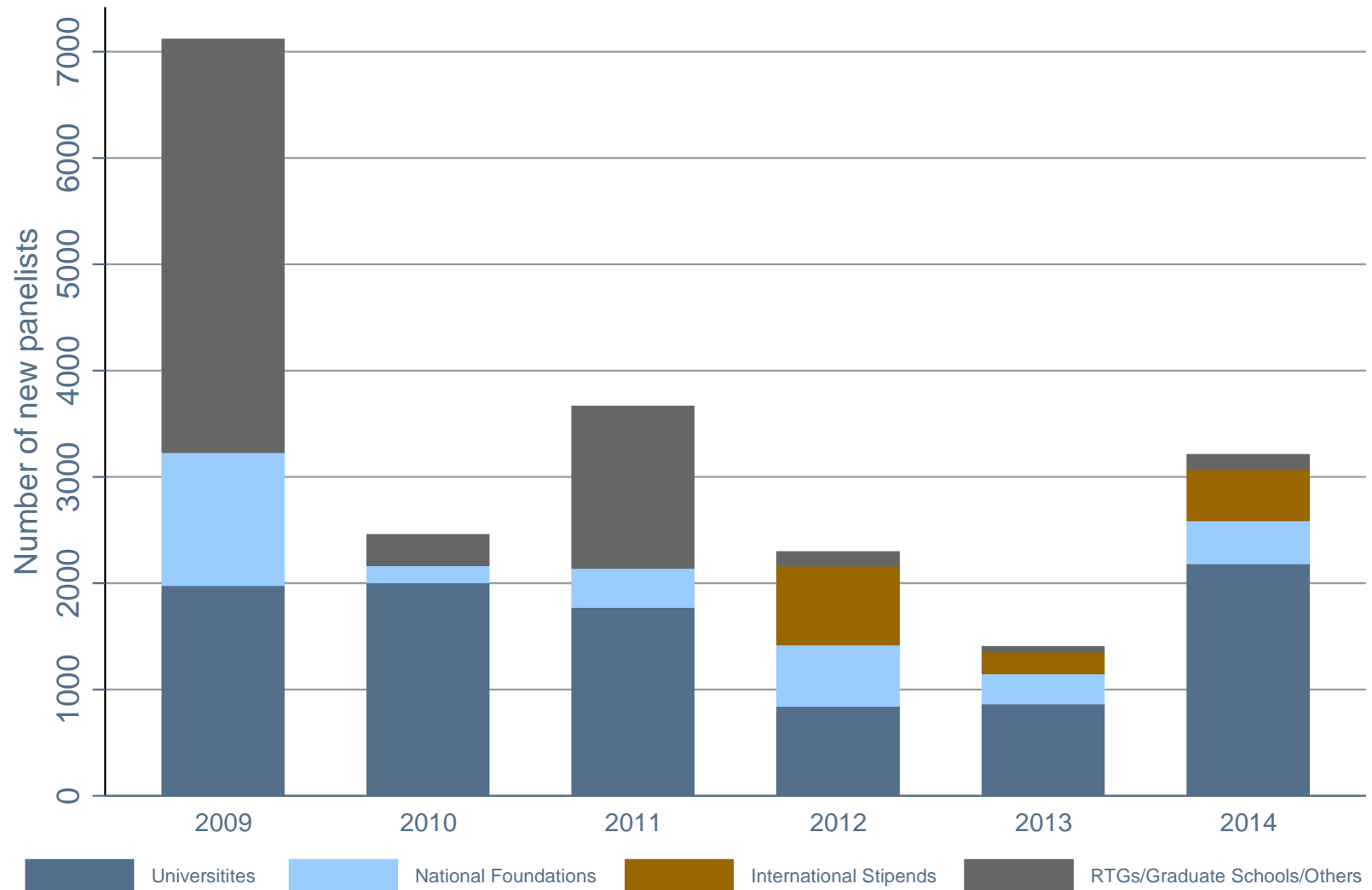UNIVERSITÄT OSNABRÜCK

HEINRICH BÖLL STIFTUNG

Studienstiftung des deutschen Volkes

DAAD Deutscher Akademischer Austausch Dienst German Academic Exchange Service

Scholarship providers for outstanding young researchers and foundations
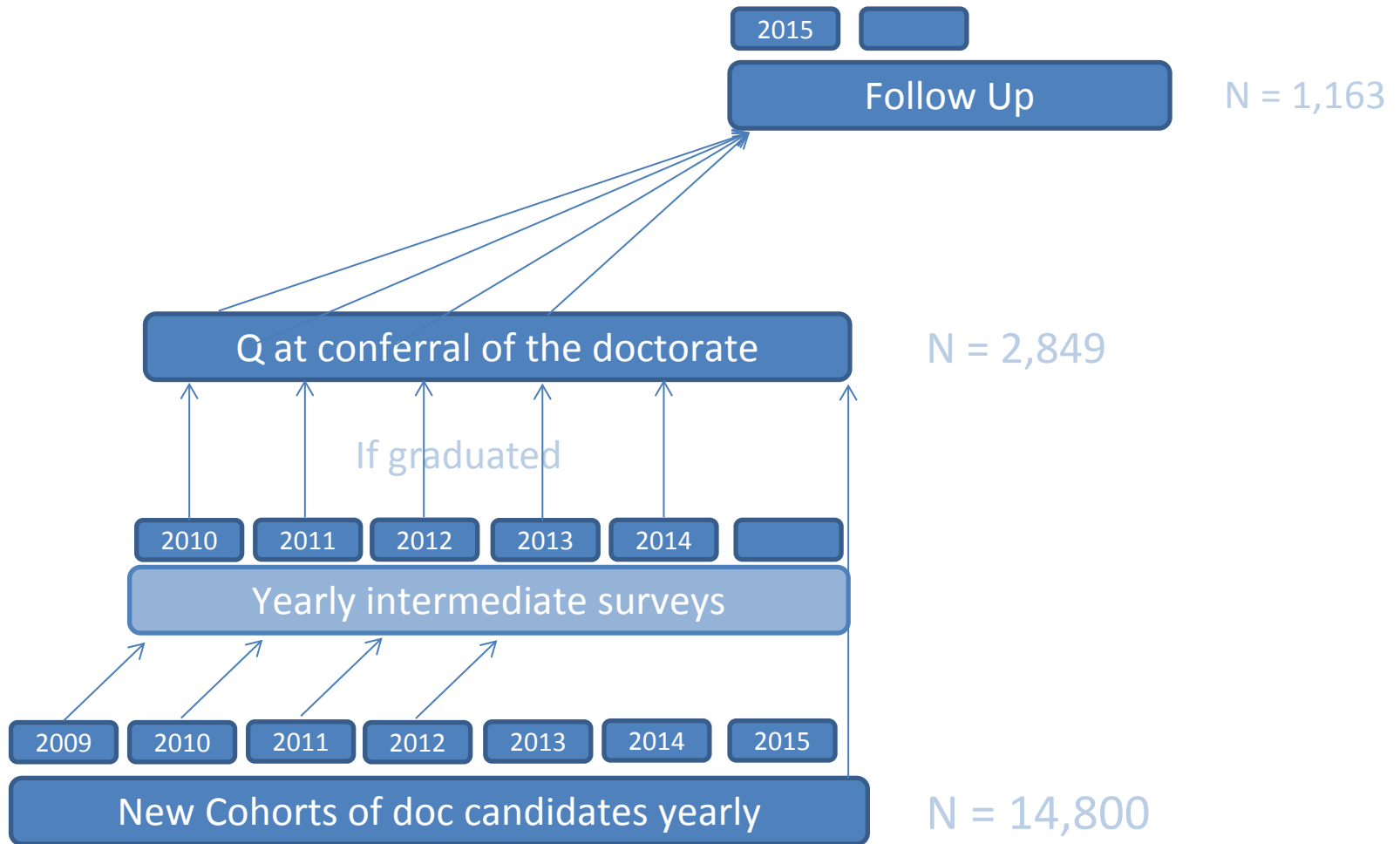
iFQ

Yearly Additions to the Panel

Data Delivery

- Annual data delivery of "new" doctoral candidates

- Duplicate checks

- Research on wrong/missing email addresses (e. g. Linked-in)

Surveys conducted so far

- Annual initial surveys, ongoing since 2009
- Starting from 2010, annual intermediate surveys between initial survey until event trigger "questionnaire after conferral of the doctorate" (5 surveys so far)
- Follow-Up survey to assess occupational placement after conferral of the doctorate (2015)
- 16 questionnaires

- Response Rates: net 15-75%, depending on cooperating institution

Surveys Conducted

Coverage

- Two Levels:
  - Participating institutions
  - ~Total Population (Comparison with official estimates)

Table 1 Doctoral candidates in official estimation and in ProFile by discipline and gender. Share in percent.

	Share of doctoral candidates Winter term 2010/2011 (Statistisches Bundesamt 2012) in percent			Share of ProFile-Participants (2009-2011) in Percent		
	Women	Men	Total	Women	Men	Total
Linguistics and Cultural Studies	59	41	**19**	64.9	35.1	**29.5**
Law, Economic and Social Sciences	41	59	**18**	49.7	50.3	**20.3**
Sports	/	/	**/**	44.4	55.6	**0.6**
Mathematics, Natural Sciences	38	62	**29**	45.4	54.6	**37.9**
Medicine/Health Sciences	59	41	**4**	71.2	28.8	**2.2**
Veterinary Medicine	/	/	**1**	94.1	5.9	**0.6**
Agricultural, Forestry and Nutritional Sciences	52	48	**3**	51.6	48.4	**3.2**
Engineering Sciences	19	81	**22**	34.4	65.6	**3.1**
Fine Arts, Art History	67	33	**2**	74.7	25.3	**2.6**
Outside the structure of the fields of study	60	40	**1**	0	100	**0**
Total	41	59	**100**	53.5	46.5	**100**

Source: Statistisches Bundesamt (2012:21f.) as well as ProFile data.

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Analytic Potential – Which research questions can be addressed using the ProFile data?

Analytic Potential - I

Assessed once for every panelist	Assessed multiple times during the doctorate
Discipline (open ends)	Conditions of supervision, membership in structured program
Gender, Age, Nationality, Citizenship	Courses attended
Parent's educational background	Conference participation
Personality (Big Five) (2013 onward)	Publications, grant applications
Willingness to take risks	Career intentions
Educational biography	Stays abroad/mobility
Motivation to start working on the doctorate	Skills and competences
Reasons for choosing the specific university	Partnership, Children

Analytic Potential - II

Assessed for doctorate holders	Transitions/Duration
Thesis grade	Within the edcational biography (e.g. from higher education entrance qualification until beginning of the doctorate)
Job search and job offers during the doctorate	Between different episodes of financing during the doctorate (e.g. after a scholarship)
Thesis by publication	After conferral of the doctorate into first job (occupational placement in academia)
Retrospective assessment of conditions during the doctorate	Elapsed time for working on the doctorate

Analytic Potential - III

Sequence data (on monthly basis)

- Sources of financing during the doctorate (also parallel episodes)

- Periods of interruptions while working on the dissertation

- Research stays abroad and in Germany

Analytic Potential (as Regards Methods)

- Descriptive analysis

- Regressions/panel regression

- Event history analysis

- Sequence analysis

- Cluster analysis

- Multilevel analysis (e.g. disciplines)

- Matching with other institutional/aggregated data
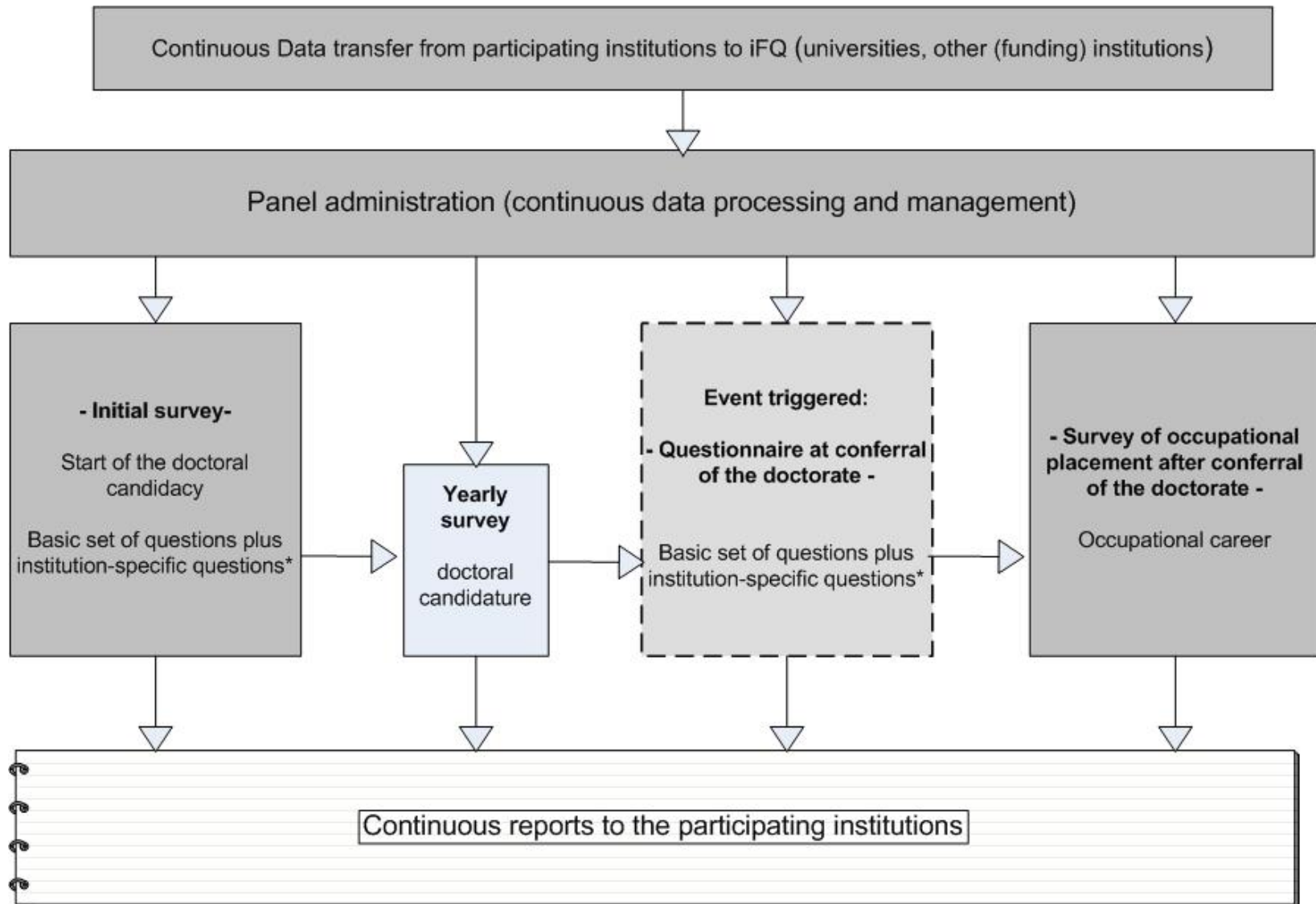
- …

Information on SUF

SUF

- All persons with at least one status information included
- Individualized SUF
- Accessible Surveys:
- Survey != Questionnaire

Table 1 Overview of conducted surveys and data accessibility

Survey Name	Survey Year
Initial Survey	2009
	2010
	2011-2012
	2012
	2013
	2014
	2015
Evaluation "intermediate" survey"	2009
	2010
	2011
	2012
	2013
	2014
	2015
Follow Up Survey	2015

Black letters: Finished and available as SUF Grey letters: Finished but not yet part of SUF.

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SUF – Sample Logic

3 Dimensions:

- Cooperation Partner (Uni, Stipends, Full)
- Longitudinal vs. Cross sectional
- Status of Candidature (Candidacy, Doc Holder, Follow Up)

SUF – Classification and Conversion

	Assessment in ProFile survey	Available Standards
Disciplines	Open ends answer	Destatis Studienbereiche, FOS2007, ISCED97
Educational Degrees	Via closed question as a list of degrees.	ISCED
Countries	Country Names were assessed for country of birth and country of study degree (partially). Open end answers were transformed into a fixed list beginning in 2013	ISO

- Documentation includes conversion tables, data includes different classification schemes

SUF – External Data

- Information can be added to SUF upon request

- ETER IDs in master data

Access Conditions

Operative access conditions

- One guest room with a single PC workstation

- Arrangements for the PC workstation (controlled and restricted computer environment):
➢ Access code (password)
➢ Stata-Licence/R-Studio

- Selective access:
➢ No access to iFQ network, individual folder permission on drive (Y:) where the data set will be stored

Operative access conditions

- To prevent unauthorized data transfer the PC workstation that is used for data analysis needs to be adapted:

➢ Ports for external data carriers will be disabled

➢ Software for data transfer will not be available (no internet, no e-mail programme)

- For further work the guest researcher will be allowed to use a private notebook that facilitates the communication via e-mail, internet research, the use of Office-programmes and printing (PC for communication)

- The storage of (preliminary) results (e.g. tables, graphics) on data carriers for the purpose of further processing/finishing elsewhere may only be carried out by the local data set team. The dissemination has to be formally documented

Operative access conditions

- Access to building and office:

➢ Guest researchers can enter iFQ only during general working hours. Other people are only allowed to accompany the guest researcher after this has been agreed upon

➢ Guest researchers will not get a key to enter the facility

General proceeding and interaction with local data set providing team

- Information on the data set (e.g. data documentation, codebook) on RISIS platform, iFQ Homepage and ProFile Homepage

- http://risis.eu/data/: Interested researchers will have to undertake a two-step process: **accreditation** (through signing the charter of good practice), and **selection** of the project they intend to develop (through a review by the relevant dataset producers and by the RISIS project review board).

- http://risis.eu/risis-code-of-conduct/: Code of Conduct (CoD) applies to all researchers entering the RISIS infrastructure and provides help and orientation (e.g. basic principles and research ethics, authentication via ORCID ID, proper use and share of data, research purposes only, publish results and post on RISIS website, acknowledge RISIS, reporting, financial conditions)

General proceeding and interaction with local data set providing team

- Contacting of local dataset team prior to the research visit via e-mail (new account „profile_guest") to specify the individual research interest as well as the time and duration of the research visit

- Basket tool (idea, work in progress) on the ProFile Homepage (and RISIS platform) where researchers can select a set of variables and send it to the local dataset team asking for feasibility

- Local dataset team decides whether the data set is suitable to answer the respective research question(s) and/or makes suggestions

General proceeding and interaction with local data set providing team

- Local dataset team generates the individualized data set after having reached an agreement with the guest researcher on the use of specific variables and checks the number of cases

- Signing of user contract and local non-disclosure agreement

- Organization of research visit (travel and accommodation) by guest researcher

- Regular consultation times

- Maximum period of research visit: 2-3 months

Legal and administrative issues

Signing of a user contract and non-disclosure agreement:

- Information on the institution managing the data set (iFQ) and data user
- Data set as stipulated in the contract
- Guarantee
- Prohibition of deanonymization and data secrecy
- Holders of right of use (respective guest researcher[s])
- Data file on data users
- Data protection arrangements
- Publication of results, reference
- Duration of data use and expiration of the contract
- Data storage/conservation at iFQ
- Breaches of duties
- Contract amendments, place of jurisdication

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Thank you
for your Attention!

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